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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/033,586

11/02/2001

Eytan Adar

D/A0050

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12/21/2005

PATENT DOCUMENTATION CENTER

XEROX CORPORATION

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ROCHESTER, NY 14644

EXAMINER

KOROBV, VITALI A

ART UNIT

PAPER NUMBER

2155

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/033,586	<b>Applicant(s)</b> ADAR ET AL.	
	<b>Examiner</b> Vitali Korobov	<b>Art Unit</b> 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 28-34 is/are pending in the application.
- 4a) Of the above claim(s) 7-24, 29 and 31-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) none is/are allowed.
- 6) ☒ Claim(s) 1-6, 28 and 30 is/are rejected.
- 7) ☐ Claim(s) none is/are objected to.
- 8) ☐ Claim(s) 1-24 and 28-34 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **Response to Amendment**

1. This Office Action is in response to the amendment filed on 10/14/2005. Claims 1-7, 9-12, 18-24 and 28-31 were amended. Claims 25-27 were cancelled. New claims 32-34 were added. Claims 1-24 and 28-34 are currently pending in this application.

2. **Examiner's Note:** The Applicants list claim 27 in the introductory section of the "Remarks" as cancelled, yet at the same time list it as pending. Claim 34 is not mentioned as a new claim that has been added, and the Applicants state that only claims 1-24 and 27-33 are pending. In the interest of advancing the prosecution of the current application, the Examiner assumed that these inconsistencies are typographical errors and that the listing of the claims is a true representation of the claims to be examined in this Office Action. Therefore, the Notice of Non-Compliant Amendment (37 CFR 1.121), Form PTOL-324, is not issued in order to speed up the prosecution of the instant application.

### ***Election/Restrictions***

3. This application contains claims directed to the following mutually exclusive, patentably distinct species of the claimed invention:

Species 1 - Extrapolating user profile information from user web page access patterns, using the vector method (Claims 1-6, 28 and 30);

Species 2 - Extrapolating user profile information from user web page access patterns, using the bias method (Claims 7-10 and 32-34);

Species 3 - Extrapolating user profile information from user web page access patterns, using the probabilistic method (Claims 11-24, 29 and 31).

Applicants are required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no

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generic claim is finally held to be allowable. Currently, no claim appears to be generic.

Applicants are advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Should Applicants traverse on the ground that the species are not patentably distinct, Applicants should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the Examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

A telephone call was made on November 30<sup>th</sup>, 2005 to the Applicants' representative Mr. Thomas Zell (Reg. No. 37,481) to request an oral election to the above election requirement. Mr. Zell elected Species 1, with related claims 1-6, 28 and 30, without traverse. Therefore, the remaining pending claims are withdrawn from consideration for the purposes of the instant Office Action.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 28 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by the U. S. Patent No. 5,991,735 issued to Gerace, hereinafter Gerace.

Regarding claim 1, Gerace teaches a machine-implemented method (Abstract) for extrapolating user profile information from user web page access patterns (Col. 2, lines 1-14), comprising: detecting a set of web pages accessed by a test user having an unknown user profile attribute (Col. 2, lines 61-67 - User object tracks unknown user web page access pattern); mapping at least a subset of said detected web pages to a first data structure, said first data structure representing a web page access pattern of said test user (Col. 7, lines 29-34); comparing said first data structure to a plurality of a second data structure to obtain a comparison result (Col. 5, lines 2-8 - data recorded by a user profiling member is compared with a target audience profile), the plurality of said second data structure representing clusters of web page access patterns of a sample data set of users having a known user profile attribute in common (Appendix I - clusters of web pages; Appendix III - User customized categories); evaluating based on said comparison result the plurality of said second data structure and said first data structure (Col. 2, lines 50-55 - regression analysis); and assigning said unknown user profile attribute of said test user from the matching second data structure to said test user (Col. 2, lines 18-22); wherein the known user profile attribute in common of the sample data sets corresponds

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to the unknown user profile attribute of said test user (Col. 2, lines 61-67 - updating user information).

Claim 28 is essentially the same as claim 1, except for two additional limitations in claim 28: a memory and a processor, which computers taught by Gerace inherently contain. Claim 28 encompasses the same scope of the invention as that of claim 1, and sets forth the invention as an apparatus instead of a method, as does claim 1. Therefore, claim 28 is rejected for the same reason as the above rejected claim 1.

Claim 30 is essentially the same as claim 1, except for an additional limitation of a processor, which computers taught by Gerace inherently contain. Claim 30 encompasses the same scope of the invention as that of claim 1, and sets forth the invention as a program code instead of a method, as does claim 1. Therefore, claim 30 is rejected for the same reason as the above rejected claim 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that

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the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerace in view of the U. S. Patent Application Publication No. 2003/0018636 A1 by Chi et al., hereinafter Chi.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be

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overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding claim 2, Gerace teaches the method of claim 1, but does not explicitly teach such method wherein said first and second data structures are multi-dimensional vectors, wherein each dimension of said first and said second multi-dimensional vectors corresponds to a different web page, and wherein each dimension of said second data structure corresponds to an average of user multi-dimensional vectors in its corresponding cluster.

However Chi, in analogous art, related to methods for determining the types of users visiting a document collection or a web site, teaches a method wherein said first and second data structures are multi-dimensional vectors, wherein each dimension of said first and said second multi-dimensional vectors corresponds to a different web page, and wherein each dimension of said second data structure corresponds to an average of user multi-dimensional vectors in its corresponding cluster ([0035] - where the limitation of multi-dimensional vectors is met by the multi-modal vectors, and [0046] - averaging of multi-dimensional vectors in corresponding clusters).

Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to combine the teachings of Gerace and Chi in order to integrate various modes or types of information sources such as the information content of a web site and the information about the type of user.



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Regarding claim 3, Gerace/Chi combination teaches the method of claim 2, wherein said comparing step comprises: determining a distance between said multi-dimensional vectors (Chi, [0039] - determination of multi-modal similarity function).

Regarding claim 4, Gerace/Chi combination teaches the method of claim 3, wherein said determining further comprises computing a cosine of an angle between said multi-dimensional vectors (Chi, [0040] - a similarity function may be defined to be the cosine of the angle between any two multi-modal vectors).

Regarding claim 5, Gerace/Chi combination teaches the method of claim 2, wherein said unknown user profile attribute is demographic information (Gerace, col. 2, lines 38-42).

Regarding claim 6, Gerace/Chi combination teaches the method of claim 5, wherein said demographic information is one of gender and age (Gerace, col. 23, lines 16-23 - gender, age).

7. **Examiner's note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-6, 28 and 30 have been carefully considered but are moot in view of the new ground(s) of rejection, necessitated by the Applicant's amendment.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vitali Korobov whose telephone number is 571-272-7506. The examiner can normally be reached on Mon-Friday 8a.m. - 4:30p.m..

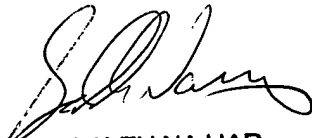
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571)272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vitali Korobov  
Examiner  
Art Unit 2155

12/12/2005  
VAK



**SALEH NAJJAR**  
**SUPERVISORY PATENT EXAMINER**